

AMENDMENTS TO THE CLAIMS:

Please cancel claims 4–5 and 20 without prejudice. Please amend the remaining claims as follows, substituting any amended claim(s) for the corresponding pending claim(s):

1. (Currently Amended) Apparatus for a communication station operable in a wireless communication system at least to receive first and second data signals successively transmitted thereto by a first subscriber station and a second subscriber station, respectively, within a plurality of subscriber stations, ~~said the~~ apparatus comprising:

a first demodulator selectably coupled to receive the first data signals transmitted to the communication station;

at least a second demodulator also selectably coupled to receive the second data signals transmitted to the communication station; and

a controller, coupled to ~~said the~~ first demodulator and to ~~said the~~ at least second demodulator in a feedback arrangement, ~~said the~~ controller alternately selecting the first data signal for application to ~~said the~~ first demodulator and the second data signal for application to ~~said the~~ second demodulator,

wherein the at least the second subscriber station comprises a plurality of subscriber stations and wherein the controller selectively applies the first and second data signals to the first and second demodulators according to a selected pattern by alternately coupling the first demodulator and the second demodulator to receive, selectably, the first and at least second data signals communicated by alternating ones of the plurality of subscriber stations.

2. (Currently Amended) The apparatus of Claim 1 wherein the wireless communication system comprises a fixed wireless access system, wherein the communication station comprises a base station of the fixed wireless access system in which the data signals transmitted thereto by the first subscriber station comprise first uplink burst data signals and the data signals transmitted thereto by the second subscriber station comprise second uplink burst data signals, ~~said~~ the first demodulator embodied at a first modem.

3. (Currently Amended) The apparatus of Claim 2 wherein ~~said~~ the second demodulator is embodied at a second modem.

4. (Canceled).

5. (Canceled).

6. (Currently Amended) ~~The apparatus of Claim 1~~ Apparatus for a communication station
operable in a wireless communication system at least to receive first and second data signals
successively transmitted thereto by a first subscriber station and a second subscriber station,
respectively, within a plurality of subscriber stations, the apparatus comprising:

a first demodulator selectably coupled to receive the first data signals transmitted to the
communication station;

at least a second demodulator also selectably coupled to receive the second data signals
transmitted to the communication station; and

a controller, coupled to the first demodulator and to the at least second demodulator in a
feedback arrangement, the controller alternately selecting the first data signal for application to the
first demodulator and the second data signal for application to the second demodulator,

wherein the first and at least second data signals transmitted to the communication station
by the first and at least second subscriber stations are transmitted in bursts of selected time durations
and wherein ~~said~~ the controller further determines times of arrival and time directions of the bursts
which form the data signals.

7. (Currently Amended) ~~The apparatus of Claim 1~~ Apparatus for a communication station operable in a wireless communication system at least to receive first and second data signals successively transmitted thereto by a first subscriber station and a second subscriber station, respectively, within a plurality of subscriber stations, the apparatus comprising:

a first demodulator selectably coupled to receive the first data signals transmitted to the communication station;

at least a second demodulator also selectably coupled to receive the second data signals transmitted to the communication station; and

a controller, coupled to the first demodulator and to the at least second demodulator in a feedback arrangement, the controller alternately selecting the first data signal for application to the first demodulator and the second data signal for application to the second demodulator,

wherein ~~said~~ the controller further comprises a memory portion, ~~said~~ the controller further for maintaining profiles associated with each of the first and at least second data signals transmitted upon first and at least second channels, respectively, the profiles stored at the memory portion of ~~said~~ the controller.

8. (Original) The apparatus of claim 7 wherein the profiles maintained at the memory portion of ~~said~~ the controller comprise at least one channel-related parameter associated with the first and at least second channels upon which the first and at least second data signals are communicated, respectively.

9. (Currently Amended) The apparatus of claim 8 wherein ~~said~~ the first demodulator and ~~said~~ the second demodulator each include equalizer portions for equalizing the at least one of the first and second data signals selectably applied to ~~said~~ the first demodulator and ~~said~~ the second demodulator, respectively.

10. (Currently Amended) The apparatus of claim 9 wherein the filter weight values form portions of the profiles maintained by ~~said~~ the controller and stored at the memory portion thereof.

11. (Currently Amended) The apparatus in claim 7 wherein the profiles maintained at the memory portion of ~~said~~ the controller comprise at least one signal-related parameter associated with the first and at least second data signals, respectively.

12. (Currently Amended) The apparatus of claim 11 wherein the first and at least second data signals are characterized by modulation indexes, and wherein values of the modulation indexes form portions of the profiles maintained by ~~said~~ the controller and stored at the memory portion of ~~said~~ the controller.

13. (Currently Amended) The apparatus of claim 11 wherein the first and at least second data signals are characterized by modulation orthogonalizations and wherein values of the modulation orthogonalizations form portions of the profiles maintained by ~~said~~ the controller and stored at the memory portion of ~~said~~ the controller.

14. (Currently Amended) The apparatus of claim 11 wherein the first and at least second data signals include FEC (forward error correction), the FEC characterized by FEC parameters and wherein values of the FEC parameters form portions of the profiles maintained by ~~said~~ the controller and stored at the memory portion of ~~said~~ the controller.

15. (Currently Amended) The apparatus of claim 7 wherein the communication station to which the first and at least second data signals are transmitted by the first and at least second subscriber stations, respectively, exhibits antenna diversity provided by a first antenna transducer and at least a second antenna transducer, the first and at least second data signals transduced by the first and at least second antenna transducer, respectively, combined utilizing antenna combining parameters, and wherein the antenna combining parameters form portions of the profiles maintained by ~~said~~ the controller and stored at the memory portion of ~~said~~ the controller.

16. (Currently Amended) The apparatus of Claim 7 wherein profiles maintained by ~~said~~ the controller and stored at the memory portion thereof comprise values of Band timing adjustments by which to adjust the first and at least second data signals.

17. (Currently Amended) The apparatus of Claim 7 wherein profiles maintained by ~~said~~ the controller and stored at the memory portion thereof comprise values of residual carrier adjustments by which to adjust the first and at least second data signals.

18. (Currently Amended) A method for acting upon first and second successive data signals transmitted to a communication station operable in a wireless communication system by a first subscriber station and at least a second subscriber station, ~~said~~ the method comprising:

selecting at which of a first demodulator and at least a second demodulator to apply at least one of the first data signals and the second data signals, wherein the first and second successive data signals and any subsequent data signals are alternately applied to the first and second demodulators;

demodulating the at least one of the first and at least second data signals at the first demodulator when the first demodulator is selected during ~~said~~ the operation of selecting; and

demodulating the at least one of the first and at least second data signals at the second demodulator when the second demodulator is selected during ~~said~~ the operation of selecting; and

maintaining profiles associated with each of the first and at least second data signals transmitted upon the first and at least second channels, respectively, and wherein ~~said~~ the operations of demodulating further comprise accessing the profiles.

19. (Currently Amended) The method of claim 18 wherein selections made during ~~said~~ the operation of selecting are made according to a selected pattern.

20. (Canceled).